COMPUTERIZATION OF HOTEL FACILITIES (FOOD AND BEVERAGE SERVICES)

(A CASE STUDY OF ABUJA SHERATON HOTEL AND TOWERS ABUJA)

BY

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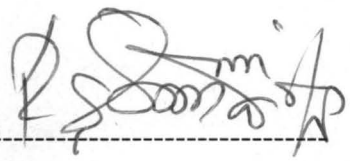
A PROJECT SUBMITTED TO THE DEPARTMENT OF MATHEMATICS/COMPUTER SCIENCE,FEDERAL UNIVERSITY OF TECHOLOGY MINNA,NIGER STATE IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF POST GRADUATE DIPLOMA IN COMPUTER SCIENCE.

MARCH, 1998

CERTIFICATION

This is to certify that this project carried out by Adamolekun Babatunde Olumuyiwa meets the requirement for the award of a post-graduate diploma in Computer Science of federal University of Technology Minna, Niger State.



15-05-98

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DEDICATION

This project is dedicated to my friend, teacher, inspirer, counsellor, faithful companion and ardent supporter HOLY SPIRIT. I recognized your presence all through the course.

I love you. Thank you.

ACKNOWLEDGMENTS

I grateful acknowledge the invaluable work and resourcefulness of the head of department of mathematics and computer science Dr. K. R Adeboye, my project supervisor Dr S. Reju, and the course co-ordinator Prince R. O Badamosi. I also thank all my lecturers for their commitment and dedication to work.

Applause and well deserved acknowledgment to my father and mother in the Lord, Rev. N. O Oke and Evangelist J. T Oke, their moral, financial and spiritual contributions to my life cannot be measured. God will remember your labour of love . I cannot forget sister Ore-ofe Oke in all these she has always being a darling.

I am also thankful to my darling wife Mrs Ayodele Adamolekun. She has been very supportive in making this project a reality. I value your love for me.

A sincere salute to my parents Mr. E. O. Adamolekun and Mrs W. Adamolekun thanks to my junior ones, Banji, Rotimi, Sade, Bukola and Toke. I love you all.

Thanks to my classmates for those beautiful moments shared together.

I also thank the management of Sheraton Hotel and Towers for allowing me to use their facilities. I want to use this medium to appreciates the following members of staff of Sheraton Hotel and Towers- Mr. Ugo, Mr. Muhammed, Mr. Bello and Mr. Titus. I am grateful to all those who made this opportunity possible.

ABSTRACT

Most hotels in Nigeria today are run manually. By this a lot of time is wasted in compiling bills for guests and also in collating transactions. Apart from five - star hotels runed by overseas hotel management companies, most Nigerian hotels with local management are run manually.

There is also the belief that computers are meant for only the big five-star hotel with overseas management, because software for running hotels are readily not available and computerization can be expensive. Some hotels managers also have the belief that Nigerian hotels are yet to be developed to the point of acquiring computer technology.

This project therefore, designs a computer system that can be used in food and beverage department of a hotel. The package will therefore, help in making running of a hotel to be more efficient, better co-ordinated, more marketable and viable.

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CHAPTER ONE

INTRODUCTION TO HOTEL MANAGEMENT

1.1 INTRODUCTION

For greater part of each year most people live at home . Although , they may go to work shopping, visiting friends and relatives take part in other social and leisure s and activities, their homes are where they spend the night. But many of them also increasing stay away from home on business or on holiday for other reasons throughout the year. Many of them stay in hotels.

The primary function of a hotel is to accommodate those away from home and to supply them with their basic needs, but to a greater or lesser extent hotel restaurants, bars and other hotel facilities may also serve the local population. It is this basic function of the hotel which makes it quite distinct from other types of business and to which its other functions are supplementary.

It is sufficient to now define a hotel as an establishment providing for reward accommodation, food and drink for travellers and temporary residents and usually also meals, and refreshment and sometimes other facilities for other users.

1.2 THE IMPORTANCE OF HOTELS

Hotels play an important role by providing facilities for the transaction of business for meetings and conferences, for recreation and entertainment. In that sense, hotels are as essential to economics and societies as other businesses such as transport communication and retail distribution systems for various goods and services. Though facilities hotels contribute to the total output of goods and services, which makes up the material well being of nations

and communities.

In many areas hotels are important attractions for visitors who bring to them spending power and who tend to spend at a higher rate than they do when they are at home.

In area of receiving foreign visitors, hotels are often important foreign currency earners and on this way may contribute significantly to their countries balance of payments. Particularly in countries with limited export possibilities hotels may be one of the few source of tourism.

Hotels are important employers of labour. Thousands of the jobs are provided by hotels in the many occupations, which make up the hotel industries in most countries, many others in the industry are self-employed and proprietors of small hotels. The role of hotels as employers is particularly important in areas with few alternative sources of employment, where they contribute to development.

Hotels are also important outlets for products of other industries. In the building and modernization of hotels business is provided for construction industry and related trades. Equipment, furniture and fitting are supplied to hotels by a wide range of manufacturers. Food, drink and other consumable are among the most significant daily purchases from farmers, fishermen, food and drink supplies, and from gas electrify and water undertakings.

Last but not least hotels are on important source of amenities for local residents. Their restaurants, bar and other facilities often attract much local custom and many hotels have become social center of their communities.

1.3 TYPES OF HOTEL

Hotels can be classified in many ways. Hotels are referred to as luxury, resort,

commercial, residential, transient and in may other ways. Each of these terms may give an indication of standard or location, or particular hotel, but it does not describe adequately its main characteristics.

The main characteristics can only be seen when a combination of terms is applied to an hotel, each of which describes a particular hotel according to certain criteria. It will be helpful to appreciate what the main types of hotels are, by adopting particular criteria for classifying them, without necessarily attaching precise meaning to them.

Hotels can be classified according to location, position of the hotel in the location, reference to its relationship with particular means of transport and purpose of visit and main reasons for their guests stay.

Furthermore, hotels can be classified according to the range of its facilities and services an hotel may be open to residents and non-residents, short or long duration of guests stay, whether an hotel holds a license for sale of alcoholic liquor or not.

There are no universal agreement on how hotels should be described according to size but by reference to their room or be capacities we normally apply the term small hotel to one with a small amount of sleeping accommodation, the term large hotel to one with several hundred beds or bedrooms and the term- medium sized hotel to one somewhere between the two, according to the size of structure of the hotels industry in a particular country.

Whatever the criteria used in hotel guides and in classification and grading systems in existence, normally at least four or five classes or grade have been found necessary to distinguish adequately us the standards of hotels and these have found some currency among

hotel users. The extremes of luxury and basic standards, sometimes denoted by stars. The facilities considered as this grading include bedrooms, restraints, bars function rooms, meeting rooms and recreations facilities such as tennis courts and swimming pools, which are for the use of customers and these may be demential in type, size and in other ways.

The service of an hotel comprises the availability and extent of particular hotel services provided through their facilities, the style, and quality of all these in such terms as formality and informality, degree of personal astention and speed and efficiency.

Also the image may be defined as the way which the hotel portrays itself to people and the way in which it is perceived as portraying itself by them. It is a by product of its location, facilities and service, but it is enhanced by such factors as its name , appearance, atmosphere its associations by who stays, about itself and what other people say about it. Finally , its price expresses the value given by the hotel through its location, facilities, service, and image and satisfaction derived by its users.

1.4. CLASSIFICATION OF HOTELS IN NIGERIA

MINIMUM STANDARD FOR THE CLASSIFICATION

OF FIVE STAR HOTELS

1. LOCATION AND BUILDING:

(a) the locality and environment including the approach shall be suitable for a hotel of high international standards;

(b) the architectural features, construction and finish of the building shall conform to high international standards;

(c) the building shall be designed by a qualified architect;

(d) the maintenance of the exterior and interior of the building, grounds, gardens, its furniture, fixtures, curtains, bedrooms, dining room toilets, kitchen, public areas, etc, shall be of the highest standards;

(e) there shall be separate and independent entrances to the hotel and restaurant with separate service entrance for deliveries, etc.

(f) the building shall be centrally air-conditioned and the bedrooms, dining rooms, conference and banquet halls, lobbies and lounges, etc. shall be sound proof;

(g) there shall be at least one lift for every 100 rooms or major part thereof, in addition to service lifts of which there shall be at least one;

(h) a lawn or roof garden shall be maintained.

2. **Capacity:**

The hotel shall have at least 100 bedroom:

3. **Bedrooms:**

(a) at least 20% of the bedrooms shall be singles and 5% suites;

(b) each bedroom shall have separate and independent access from a corridor, verandas or a gallery and be separate from other bedrooms by walls. All bedrooms shall be out of view of the public areas;

(c) each bedrooms shall properly ventilated, lighted and clean and shall have one or more windows with glass panes measuring at least one-fourth of the floor space and provided with curtains of high quality;

(d) each bedroom shall have reasonable free space and superior quality furnishing with:

(i) 190cm x 80cm single or 190cm x 160cm double beds of high quality with a double foam rubber mattress,

(ii) two pillows and blanket for each guest with bed sheets and pillow covers in addition to two extra pillows and blanket,

(iii) a dressing-cum-writing table with a large mirror and a chair, a wardrobe or wall cupboard with space foe the storage of luggage containing coat and dress hangers, a luggage stand, a coffee table, a three piece foam sofa set, a side table, a waste paper basket, two ash trays, a vacuum flask for drinking water, two hygienically cleaned glasses for each guest and a free supply of good quality stationery bearing the name and address of the hotel.

(iv) an electric "do not disturb" indicator fixed outside the door;

(v) an electric call bell:

(e) there shall be an automatic locking system on the door of each bedroom opening into the corridor with a double locking device from within. All locks operate on a master key system:

(f) each room shall be separately numbered;

(g) the minimum floor area of each bedroom shall be:

(i) $13m^2$ for a single room

(ii) $16m^2$ for a double room

(h) all bedrooms shall have attached bathrooms:

(i) every bedroom shall have wall to wall floor covering superior quality;

(j) there shall be a temperature control device in each bedroom;

(k) every bedroom shall have a 4-band radio and system of playing piped music for guests. There shall be separate channels for oriental and western music and a channel for relaying live music from the premises of the hotel itself such as from the night club. coffee shops , etc.

(l) suites shall be well furnished and decorated. A radio, TV, bar counter, kitchenette and refrigerator shall be provided in each suit;

(m) there shall be a table lamp for every bed;

(n) the rules of establishment, instructions on how to act in case of fire and all relevant local and hotel information including that on room service and the meal hours shall be kept in each bedroom;

(o) a bouquet of fresh flowers shall be supplied in each bedroom daily.

4. **Bathrooms:**

(a) each bathroom shall have a minimum floor are of 48 sq. ft. all water closets shall be of western type;

(b) each bathroom shall be extremely modern in design and equipped with modern fittings of superior quality with the walls and floors covered with impervious materials of attractive designs and workmanship;

(c) each bathroom shall have:

(i) an electric two point plug socket for a shaver,

(ii) a wash basin with a mirror over it at face height and a light over the mirror.

(iii) hooks or hangers for clothes. ash trays. towel rails, sanitized toilet bowls. a bidet. a receptacle for soap and used blades a sanitary litter bin, a bath mat and two sanitized glasses.

(iv) an adequate supply of soap. air freshener toilet paper and shampoo.

(v) a pair each of bath. face and hand towels for each guest.

(vi) a long bath tub enclosed with water proof curtains, a flexible shower and two sanitized shower caps.

(vii) running chemically sterilized hot and cold water always.

(viii) a non-skid device in the bath tub.

5. **Light:**

(a) all areas including the restaurant, dining room, bathrooms and corridors shall be well lighted and ventilated. There shall be a controlled lighting system in all public areas:

(b) there shall be proper lighting arrangements and fixtures in all rooms with a light switch and point near the room entrance, a light control next to the bed, a call bell and an electric socket for plugs;

(c) there shall be alternative arrangement for lights in case of failure of the electric power supply.

6. **Linens:**

Clean linen of superior quality, together with pillows, bedding, blankets and bed covers shall be supplied to each new guest and changed daily.

7. **Lounge/lobby:**

(a) well-equipped and furnished lounge or lobby with space proportionate to the number of bedrooms;

(b) wall to wall floor covering of a superior quality;

(c) a public call telephone booth for visitors;

(d) comfortable seating arrangements;

(e) adequate provision of ash trays and water disposal facilities.

8. **Reception counter:**

There shall be:

(a) a reception and information counter with a telephone for external calls operating for, 24 hours;

(b) a concierge porter service for 24 hours;

(c) a page service or public address system;

(d) an information service providing general tourists information such as local events, attractions, transport, car rentals, taxi service and current and advance reservations;

(e) wake-up call service;

(f) numbered room keys;

(g) professionally trained staff fluent in English with one member having a working knowledge of another foreign language;

(h) facilities for acceptance of cables, telegrams, postal letters and supply of postage stamps;

(i) lockers for luggage and safety deposit facilities.

9. **Conference and banquet hall:**

There shall be well-furnished and equipped halls for holding conferences and banquets.

10. **Restaurant and dining room:**

(a) there shall be at least two restaurant, a dining room and 24 hours coffee shop. The dining room and restaurants shall be spacious in proportion to the capacity of the hotel and shall have comfortable sitting arrangement;

(b) the restaurants, dining room and coffee shop shall be well-equipped, well-designed and maintained at a high standard;

(c) the furnishing and decor shall be of superior quality reflecting the local culture, history and traditions of Nigeria;

(d) the floor of the restaurant, dining room and coffee shop shall be fully carpeted or tiled;

(e) cuisine shall be of high quality with Nigerian and continental dishes and there shall be prompt, courteous and efficient service;

(f) attractive menu cards indicating the prices of dishes and full meals shall be available to guest;

(g) music shall be played during meals hours;

(h) the kitchen shall be separate from the dinning area;

(i) there shall be separate male and female toilets with an adequate supply of soap, towels and toilet paper;

(k) there shall be a dance floor and an orchestra in the dinning room;

(i) room service facilities shall be provided in all bedrooms on request.

11. **Kitchen and pantry:**

(a) there shall be a clean and well-equipped pantry attached to the kitchen;

(b) the kitchen and pantry shall be completely modern, professionally designed and equipped to ensure efficient operation, with arrangements for proper ventilation and efficient removal of hot air and odours;

(c) the kitchen and pantry shall be free from all insects and pests;

(e) the kitchen table tops and shelves shall be of stainless steel or impervious material kept in hygienic, clean and good condition;

(f) utensils kept and used shall be of high quality, hygienically cleaned and in very good condition;

(g) there shall be a dish-washing machine for washing crockery and cutlery and a separate sink with running hot water and cold water for washing utensils;

(h) there shall be sufficient waste bins with covers or waste disposal units;

(i) there shall be cold storage and deep freeze facilities for the preservation of food and perishable items;

(j) there shall be separate areas for the preparation of meats, fish vegetable, salads, sweets, etc;

(k) there shall be efficient kitchen staff with at least one executive chef trained at a recognized hotel training institute.

6. **Crockery:**

All utensils, crockery, cutlery, glass and tableware shall be of a high quality, clean, well maintained and hygienically treated. No crockery or glass ware used shall be

chipped, cracked or grazed. Cutlery and silverware shall be properly plated and polished.

7. **Drinking water:**

The hotel shall provide boiled and filtered drinking water in covered flasks with a clean glass for each guest in each bedroom and dining room. There shall be a chemical filtration plant for the treatment of water used in the hotel.

8. **Bar:**

There shall be well-equipped and well-stocked bar with a counter of high quality, necceassry furnishings, controlled lighting arrangements, adequate refrigeration facilities, all types of glassware necessary for wines, spirits and beverage, a sufficient quantity and variety of liquors and beverages, cigarettes, cigars, snacks and an ice cube making machine.

9. **Staff and Services:**

(a) the serving staff shall be experienced, courteous and efficient and at least 75% of them shall have been professionally trained at a recognized training institute;

(b) all staff shall wear smart and clean uniforms on duty;

(c) the managerial, supervisor and reception staff shall be fluent in English and in one other foreign language and should possess a diploma or certificate from a recognsed institute;

(d) the manager shall possess a diploma in hotel management from a recognized institute and have fluent knowledge of English and at least one other foreign

language;

(e) all room bearers, bartenders, dining room bearers, etc. coming into frequent contact with foreigners shall have a working knowledge of English.

(f) a supervisor and three other employees shall be qualified in first-aid and fire fighting;

(g) bookings shall be honoured on the terms quoted and all contractual obligations shall be met properly;

(h) a sitting area, separate from the bar, TV lounge or games areas shall be provided;

(i) lounge service of drinks and snacks shall be available for 24 hours.

10. **Laundry and dry cleaning:**

There shall be a modern laundry, dry cleaning and pressing unit on the premises under the management of the hotel.

11. **House keeping:**

(a) house keeping shall be of internationally recognized standards, the premises, furniture and fixtures shall be spotlessly clean and tidy at all times;

(b) house keeping shall be under the supervision of a professionally qualified, trained and experienced house-keeper assisted by a sufficient number of supervisory staff and house maids, all trained at a recognized training institute;

(c) house maids shall be available on call from 8.00 a.m. to 10.00 p.m.

2.5g **Front Office:-**

It is headed by front office manager. This is the reception and information counter of the hotel. Here, porter service for twenty four hours is provided, a page service or public address system an information service providing general tourists information such as local events attractions, transport, car rentals and fax service, are part of the services rendered by this department.

This is where guests are checked into rooms and also where checking outformalities are conducted. Payments are made here in case, the guest want room accommodation. Current and advance reservations are made here.

Staff are professional trained to be fluent in English language with at least one staff having a working knowledge of one other foreign language.

Facilities for acceptance of cables, fax messages telegram, postal letters and supply of postage stamps are provided twenty-four hours non-interruptible telephone facilities are also provided.

Lockers for luggage and safety deposit facilities are provided.

2.5h **Housekeeping and Laundry Services**

The duties of this department are to :-

(a) achieve the maximum efficiency possible in the care and comfort of the guests

(b) establish a welcoming atmosphere and a courteous, reliable service from all staff of the Hotel

(c) ensure a high standard of cleanliness and general up keep in all areas

(d) ensure hotel's safety and security regulations are made known to all staff of

the hotel.

These standards are well kept in Abuja Sheraton hotels and Towers. The hotels has modern laundry, dry cleaning and pressing unit on the premises under the management of the hotel.

The premises, furniture and fixtures are always clean and tidy. Housekeepers are provided from morning till night.

2.5i **Kitchen:-**

The kitchen is headed by Executive chef. Under this department we have the kitchen, pantry and crockery. This is where the menu served in various restaurants, banquets, conferences and rooms in the hotel are being prepared.

Modern equipment are provided here to make the menus highly hygienic and delicious.

2.5j **Purchasing:-**

All the needs of various departments are directed to the General Manager. After the approval of the General Manager, it is then the duty of purchasing manager and his staff to purchase the various items. Contracts are awarded to contractors to supply the items to the hotel. The hotel maintains a highly organized purchasing department such that items are supplied within the stipulated time so that the hotel will not suffer any embarazzment.

2.5k **Security**:- Abuja Sheraton hotel and Towers occupies a large expense of hand. There are also many rooms, offices and facilities in hotel. The need for efficient security cannot be over emphasized.

The hotel premises are fenced round to provide adequate protection to guests,

(c) Since customers are kings, this system will make guests to be treated with dignity and respect. The stress that goes with standing and crowdy environment are reduced to the minimum.

(d) It will also make accounting procedure to be much easy. collating records about guests and auditing sales will be done faster.

(e) to make information to be entered and be retrieved faster.

3.2 FOOD AND BEVERAGE DEPARTMENT

This department is broken down to nine units.

(i) Papillon Restaurant:- Informal, all day dining room.

(ii) Luigi's. Traditional Italian open daily for lunch and dinner.

(iii) Mirabelle Restaurant:- for private dining.

iv) Pool snack bar:- casual and relaxing terrace with mix barbecue.

(v) The Boathouse:- Open house informal/bar with delightful entertainment.

(vi) Elephant Bar:

(vii) Lobby Bar:-

(viii) The Bakery shop

(ix) The new Dazzle Nightclub

3.3 OUTPUT SPECIFICATION

Five questions helped to determine what the output of the system should be

1) Who will receive the outputs

- the guests, internal auditors, shift managers, food and beverage manager and account department.

2) What is its planned use?

i. For guests so that they can know their bills.

ii. The food and beverage department, account department and internal auditors. It is for decision making; store records, updating of hotel accounts and account reconciliation.

3) How much details is needed?

i. The guests needs to know their bills and details of the bills.

ii. The food and beverage department needs to know the details about each guests and sales.

iii. The account department, internal auditor, and management needs to know about sales.

4) when and how often is the output needed.

i) when requested by guests.

ii) when the deposits of guests are exhausted

iii). when guests are checking out.

iv) when the hotel needs to know the amount of sales.

v) when there is need for auditing and reconciliations.

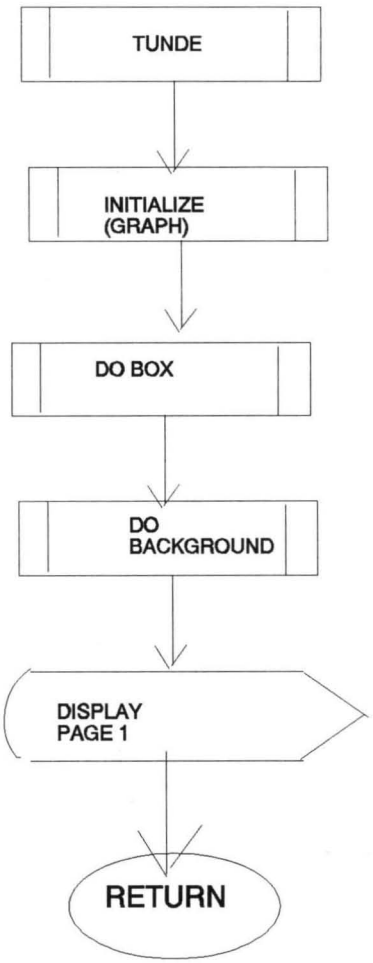
5) By what method.

i). By displaying and printing.

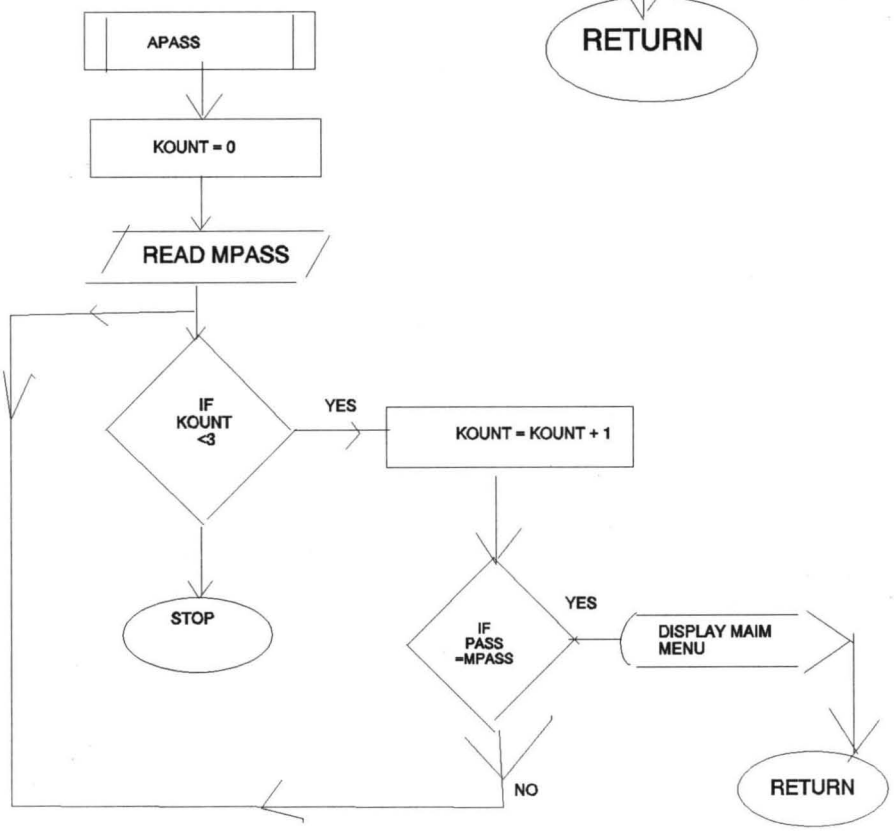
3.4 MODULAR PROGRAMM DESIGN.

In this approach, an instruction in the main control module, branches programm control to a subordinate module. Each modules are, as a matter of fact a program within a

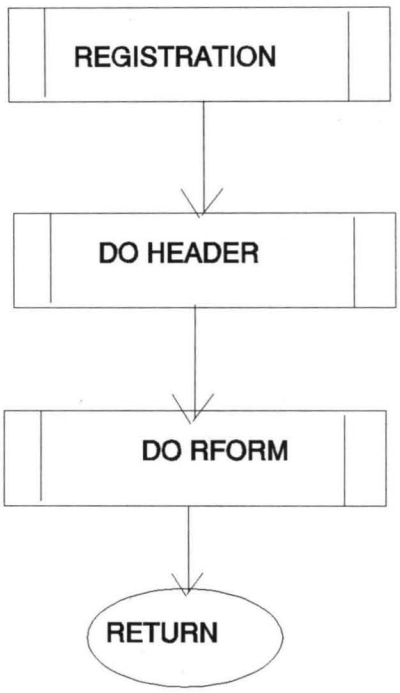
3.8.2. For Screen



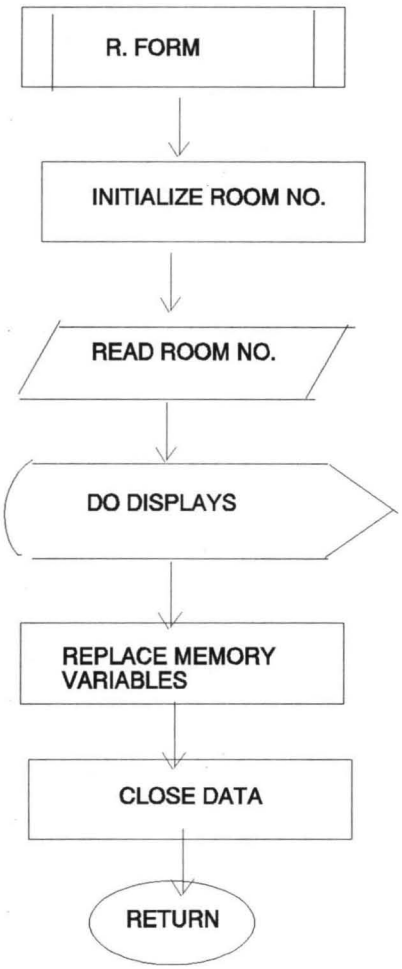
3.8.3. For Pass word



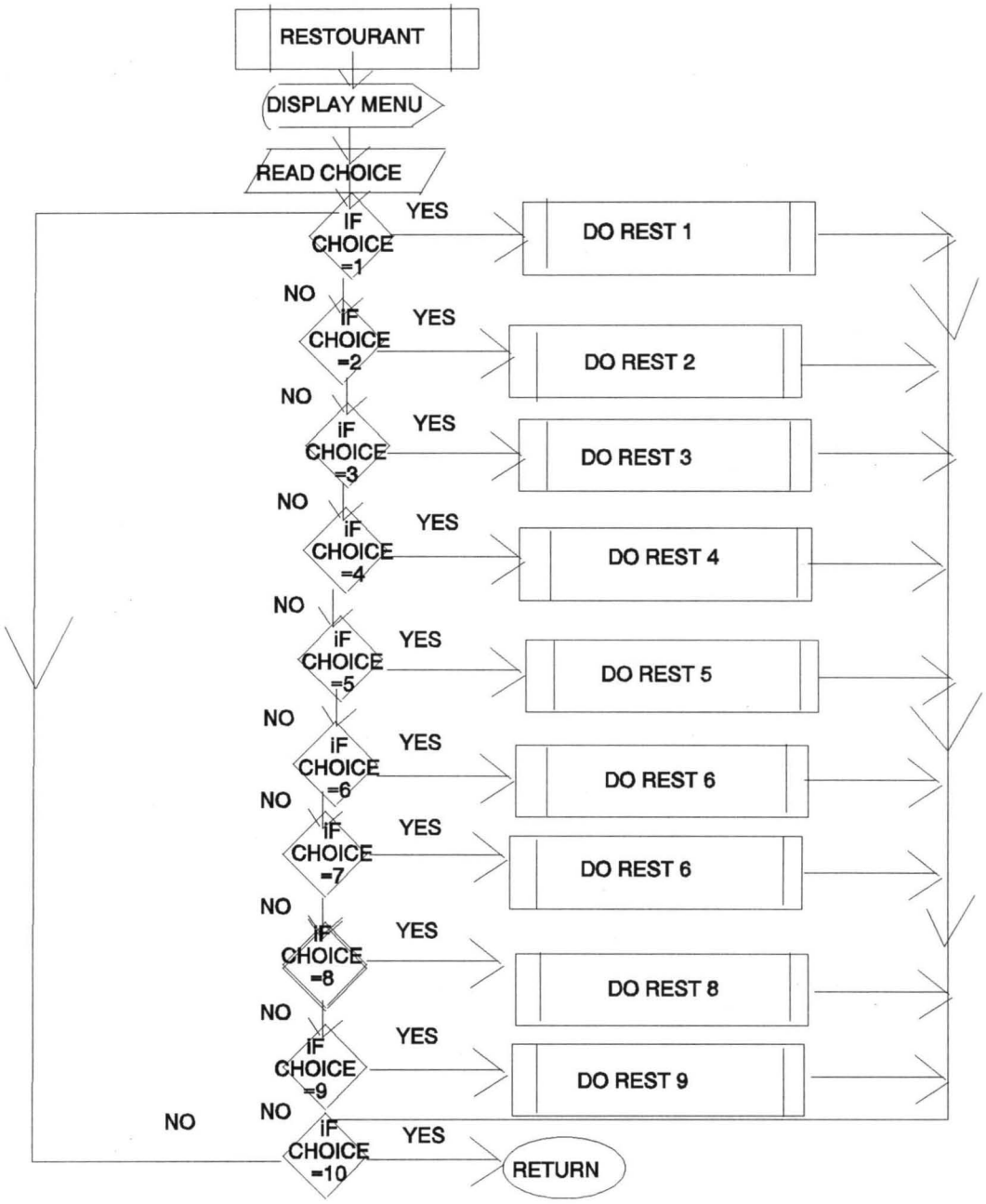
3.8.4 For Registration



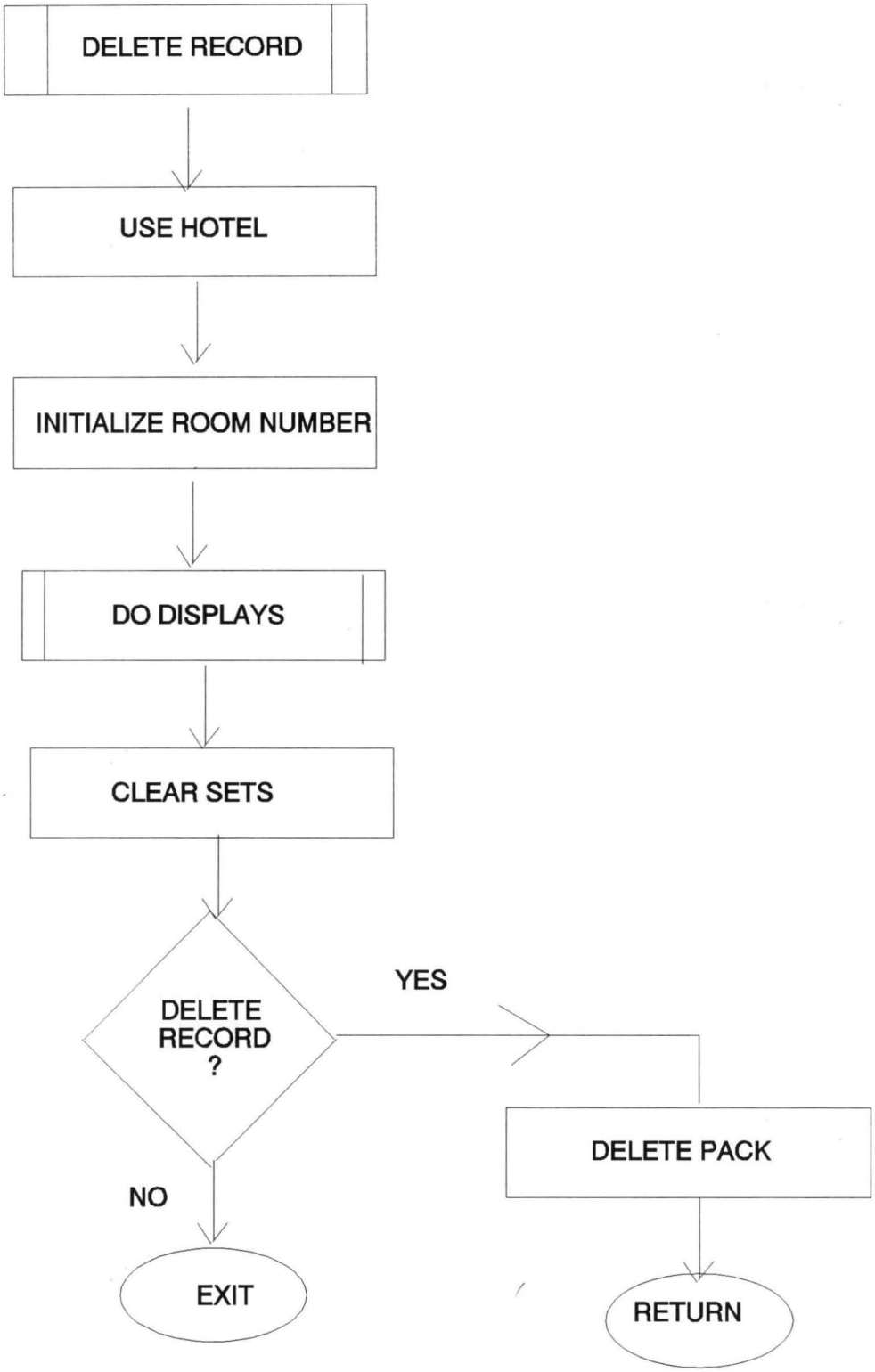
3.8.5 For Form



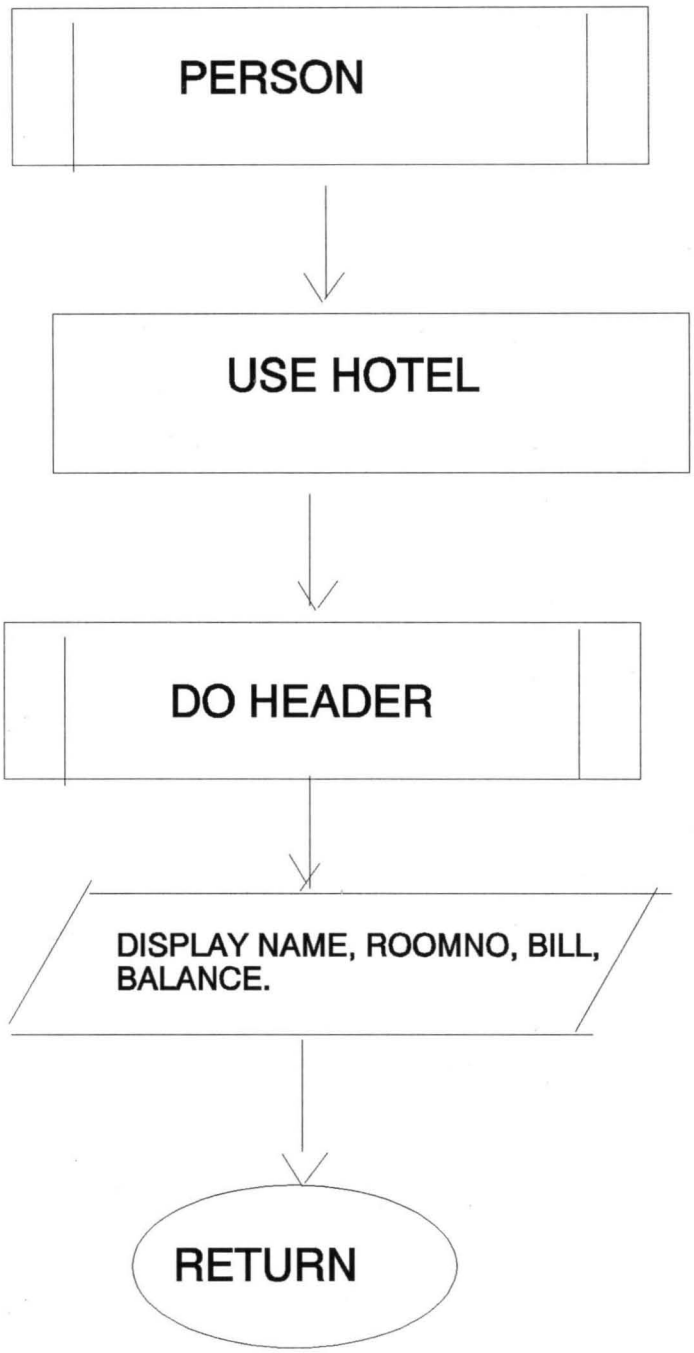
3.8.6 For Restaurant



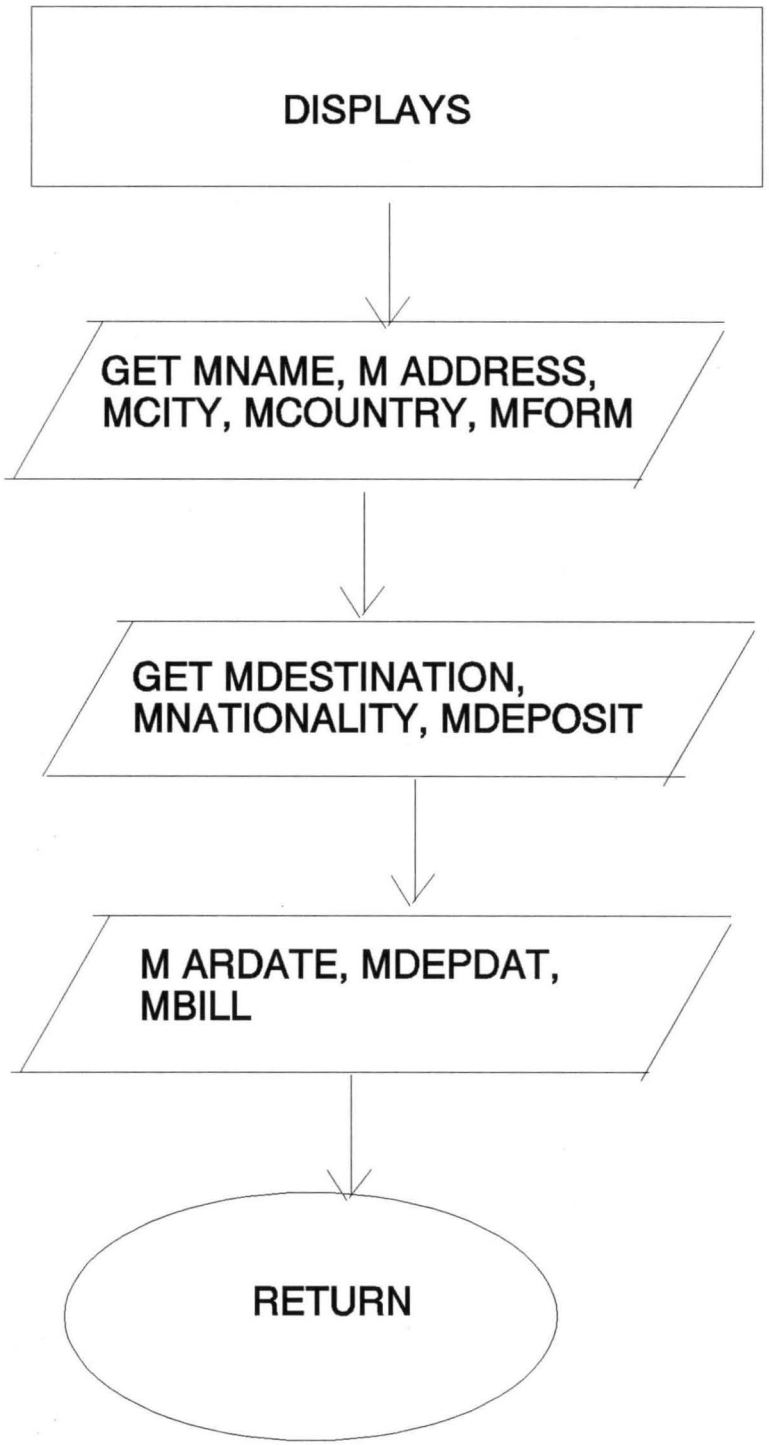
3.8.7 To Delete Record



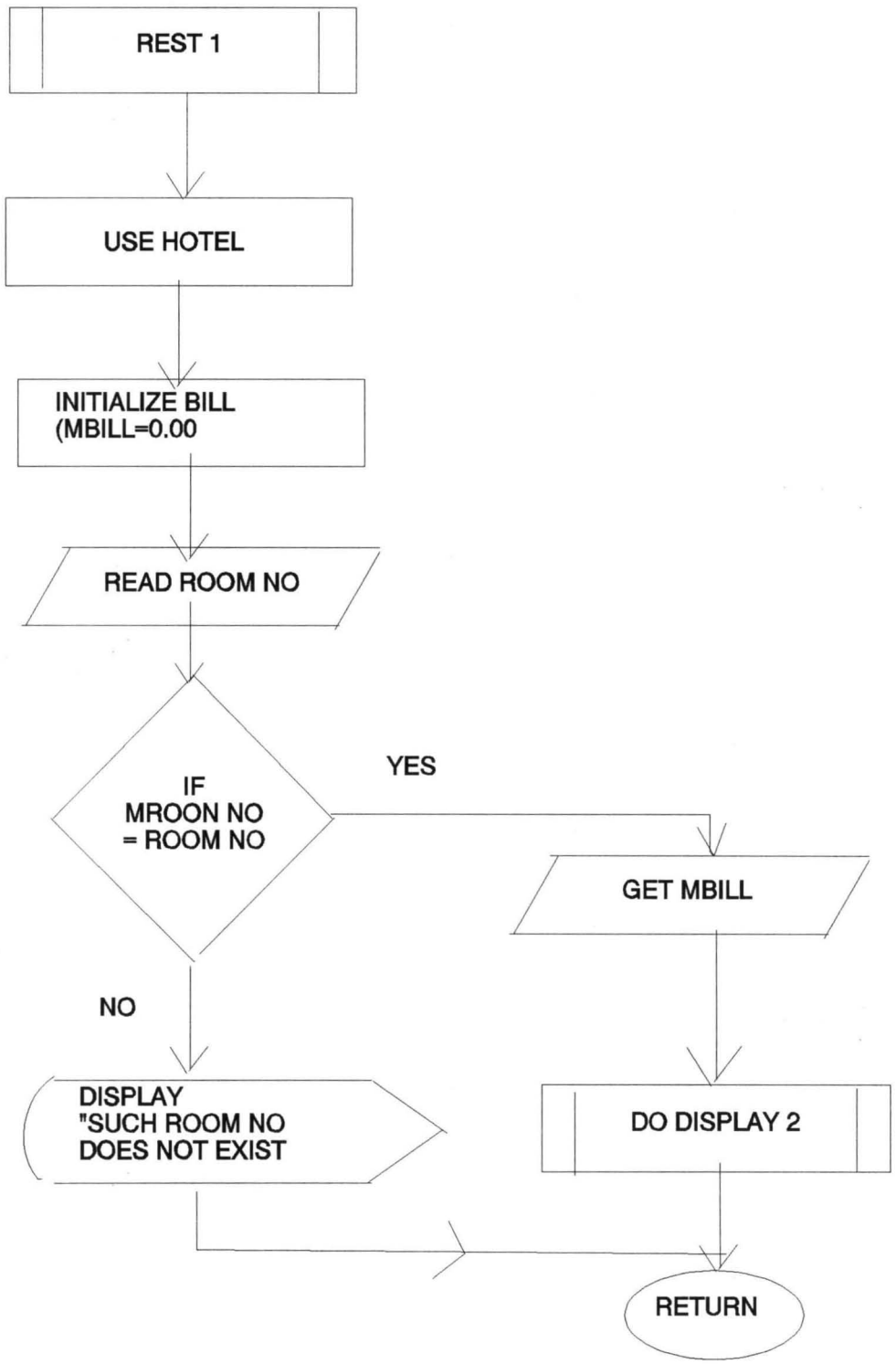
3.8.10 For Person



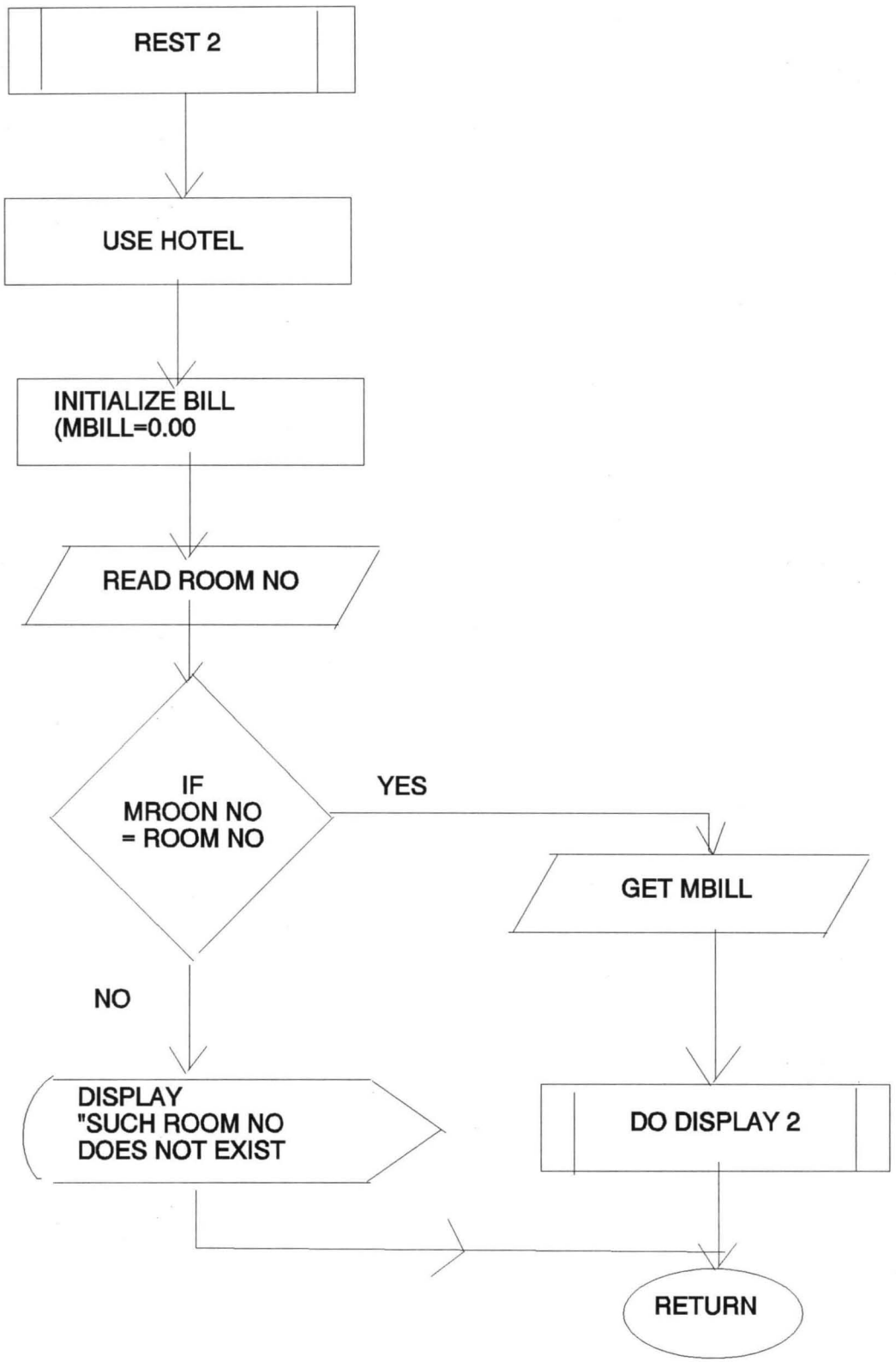
3.8.11. For Display



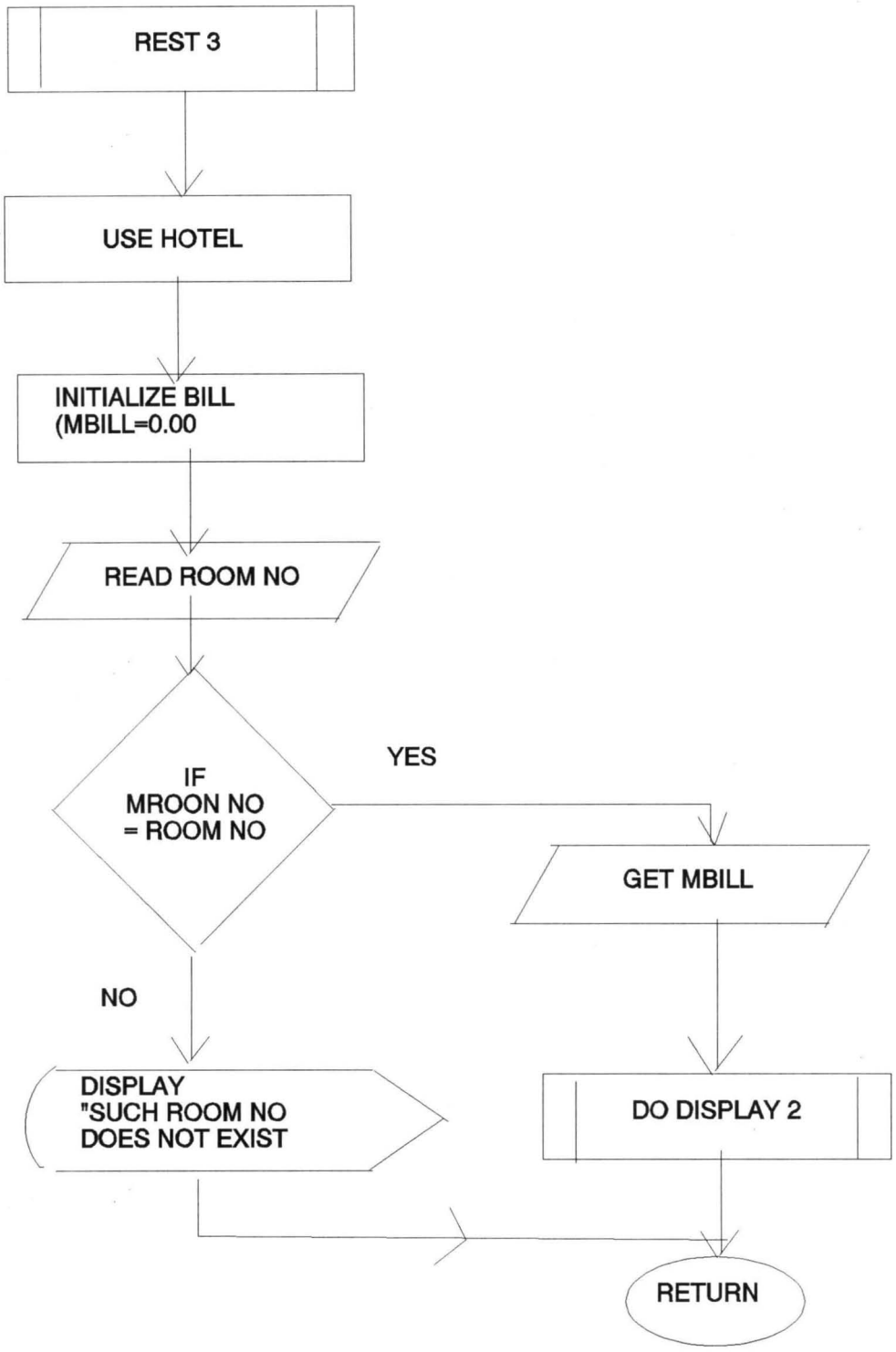
3.8.12 For Restaurant 1



3.8.13. For Restaurant 2



3.8.14 For Restaurant 3



SHERATON HOTEL AND TOWERS

COMPUTERIZATION OF HOTEL FACILITIES

FOOD & BEVERAGES SERVICES

ADAMOLEKUN B. O. (PGD/MCS/110/96)

COMPUTER SCIENCE DEPT., FUT, MINNA

- Press any key to continue....

```
                    Öáááááááááááááááááááááááááá¢        2:37:20 pm
                    °    Registration section     °
ëëë
```

2:38:35 pm

COMPUTERIZATION OF HOTEL FACILITIES
±±±±±±±±±±±±±±±±±±±±±±±±±±±±±±±±
(Food & Beverages Services)
±±±±±±±±±±±±±±±±±±±±±±±

```
èëëë
```

```
Öáááááááááááááááááááááááááááá¿          2:45:11 pm
°    Luigi_s   Restaurant     °
âáááááááááãáááááááááááááááááááì
```

Room number: SUI-003

Your Bill is: 500.00

BILL TO PAY: 500.00

DEPOSIT:1000.00

BALANCE: 500.00

any key to continue...

```
Öáááááááááááááááááááááááááááá¢          2:46:40 pm
°     Bakery Shop                        °
âáááááááááááááááááááááááááááì
```

Room number: SUI-003

Your Bill is: 350.00

BILL TO PAY: 850.00

DEPOSIT:1000.00

BALANCE: 150.00

any key to continue...

2:47:45 pm

COMPUTERIZATION OF HOTEL FACILITIES
++++++++++++++++++++++++++++++++++
(Food & Beverages Services)
++++++++++++++++++++++++++

```
èëëë
```

made on diskettes and store in a cabinet for future references.

4.3 INSTALLATION:-

Installation of the computer systems will involves highly skilled engineers, computer analyst and programmers .Abuja sheraton hotel and towers consists of more than five hundred rooms, and with many departments, the number of personnel to installed the equipment will high. So also they need to be highly skilled engineers because, if the systems are not networked the purpose of computerization may be defeated.

But for any hotel that may want to use computer systems in their F&B department the number of personnel to install the systems will depend on the size of the hotel.

4.4 IMPLEMENTATION

Since implementation includes those activities that take place to convert from an old, system to the new. In this case, the old system will be a manual system while the new system is the computerize system.

Much money will be needed to convert from the old system to a new system, there must be proper implementation.

In changing from old system to a new system two important questions must be asked.

1) Who are the people to operate the new system?

2) which type of conversion to adopt?

4.4.1 **Training**

The implementation of the system must commence with training of staff that will carry out the coding of data for the computer unit, and other staff of the hotel that will be

using the system to carry out their day to day work in the hotel. The training of the staff must be handled by the company computerizing the hotel.

The advantage of this is that, a uniform approach will be evolve, the system designer will be very sure that the staff attain the level of proficiency needed, and that there will be no problem during the hangover.

When the staff to use the system have been properly trained then a meeting can be arranged between the management and system designer on the modalities for conversion.

4.4. 2 Conversion

This is the conversion of the old file data into the form required by the new system. It is also regarded as part of changeover. For this aspect to take place, there are some important things to consider.

i) The system has been proved to the satisfaction of the systems analyst and the other implemtation activities have been completed.

ii) User manager are satisfied with the results of the systems tests, staff training and reference manuals.

iii) The target date for changeover is due. When the above have been fulfilled, then the conversion can be done in any of the following ways.

(a) **Direct Changeover**

This is when the old system is replaced by the new in one move.It is complete replacement once. This is possible when everybody concerned has confidence in the new system. The changeover must be planned in detail, systems tests and training must be comprehensive. This system is the least expensive but highly risky.

(b.) **Pilot Running**

This is when data from one or more previous periods for the whole or part of the system is run on the new system. This is done when results must have been obtained from the old system, and the new results compared with the old.

(c.) **Parallel Running**

This is when current data processed on both old and new systems to cross-check results. Here the old system must still be kept alive and operational until the new system has been proved for at least one system cycle, live data are used in the real operational environment of place, people, equipment and time.

An advantage is that the results of the old system and new system can be compared before acceptance by the user, thereby promoting user confidence. But one must put into consideration extra cost. and difficulty of user staff to carry out clerical operations for the two systems within the time available.

(d) **Staged Changeover.**

This when the new system is introduced piece by piece. That is series of limited-size direct changeovers. A complete part or equal section is committed in to the new system. While the remaining part or section are still processed using the old system when the selected processed is operating satisfactorily is the remaining selected transferred. With this method the analyst can learn from mistakes made as the changeover progress.

4.5 MAINTENANCE

When the system is up and running there may be need to conduct changes and enhancements. These may be caused by increase in tariffs and government regulations. They

5.1.2 **Hard Ware Support**

The recommended hardware are:-

(1) IBM COMPATIBLE MICRO COMPUTER

(2) MAIN MEMORY CAPACITY 640KB

(3) HARD DISK 10MB

(4) VISUAL DISPLAY UNIT: COLOR GRAPHICS

PRINTER

(1) DOT MATRIX: 1200. CPS 24. PIN

OR

LASER JET .6L (HP)

STABILIZER/UPS

STABILIZER: 250VA.

U.P.S. 500 VA

5.1.3 **Software Support**

The recommended software are the ones listed below.

(1) Disk operating system MS DOS 6.0

and above

(2) DBMs Package: DBASE IV

(3) TURBO PASCAL COMPILER TP 6.0

5.2 CONCLUSION

Preliminary study of hotels using manual system of operation has revealed that a change is inevitable. A lot of problems are encountered with the manual system of processing

transaction. But introduction of computer system transaction in hotel will be advantageous to the guests and the hotel management.

In Abuja Sheraton hotels and towers it was found that because the hotel facilities and outlets are all computerized, services rendered to customer are highly efficient. Guests are checked in within minutes and since billing are compiled by computers guests really appreciate the efficient services rendered by the hotel.

This project also has served as a kind of eye opener to how computer system can contribute to marketability of hotel business. Since there are so many outlets in an hotel, coordination is much more easier in a computerized environment. The emphasis of this project is the food and beverage department with about eight outlets that guests can choose from. It can be adapted to a small hotel or a bigger hotel.

5.3 RECOMMENDATION

Since hotels contains of so many other departments as highlighted in chapter one and two of this project there are still room for further development. for the computer system to be highly efficient, the best thing to do is to computerized all facilities in the hotel. With all facilities computerized, guests will be made more comfortable and on the part of the management coordination and managing of vast facilities are done more efficiently.

I am therefore recommending that other facilities like, housekeeping, room services, sales, training, kitchen, purchasing and accounts, etc are computerized. I wish in more years to come students will work on these other parts, so that the work can be complete.

Secondly, I wish to recommend that hotels no matter has small will begin to avail themselves the use of computer in managing their businesses.

APPENDIX 1

```
* MAINPROGRAM
run a:\tunde
set talk off
set echo off
set cent off
set conf on
set escap on
set safe off
 set status off
 set color to B
 clear all
 do apass
 do while .t.

 store 0 to choice
 clear
 set color to B+,g,w,w+
 do header
 @8,20 to 20,60 doub
 @10,26 say '1. === Registration'
 @12,26 say '2. === Food Service'
 @14,26 say '3. === Delete Record'
 @16,26 say '4. === Generate Report'
 @18,26 say '5. === QUIT'
 @21,24 to 23,56 doub
 @22,28 say 'Your Choice [ ]'
 @22,41 get choice pict '9'
 read
 do case
        case choice = 1
          do Registration
        case choice = 2
          do Restaurant
       case choice = 3
          do Deleterec
       case choice = 4
          do Report
        case choice = 5
          quit
        otherwise
            @22,20 say 'Invalid Choice'
                   wait
            @22,1 clear to 24,79
```

```
        endcase
        enddo
return

Procedure apass
        set device to screen
        set status off
        set talk off
        set safe off
        mpass = "TUNDE"
        store .t. to test
        store 0 to kount
        clear
        do while test .and. kount < 3
         store space(5) to pass
          @10,10 say "ENTER YOUR PASSWORD:"
          set inte off
          set color to b/b
          @10,30  get pass pict "@X!"
          read
          set color to w/b
          set inte on
         wait
         clear
       if pass = mpass
          @ 10,10 clear to  12,70
          @20,20 say "AUTHORITY TO ACCESS THIS PACKAGE GRANTED"
          @22,20
          wait
          clear
          return
      else
         kount = kount + 1
           clear
            @10,5 say "WRONG PASSWORD "
             @12,12 say " RE-ENTER AGAIN"
              wait space(10) + " press any key to continue"
              clear
              loop
             store .f. to test
             @6,10 say  " UNAUTHORIZED USER !"
             @8,12 say " GOOD BYE!"
                 close all
                  cancel
```

```
        endif
    enddo
return

Procedure header
        set talk off
        set status off
        set scoreboard off
        set echo off
        set clock to  1,63
        set color to  w+/r+
        @1,20 fill to  6,60 color rg+/r+
        @2,22 say 'COMPUTERIZATION OF HOTEL FACILITIES'
        @3,22 say '■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■'
        @4,25 say '(Food & Beverages Services)'
        @5,25 say '■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■'
        ?
        return
procedure Registration
        clear all
        do header
        do rform
        read
 close data
return

Procedure Restaurant

store 00 to choice2
do while choice2 < > 10
clear
do header
@8,20 to 19,60 doub
@9,26 say '1. === Papillion Restaurant'
@10,26 say '2. === Luigis'
@11,26 say '3. === Mirabelle Restaurant'
@12,26 say '4. === Pool Snack Bar'
@13,26 say '5. === The BoatHouse'
@14,26 say '6. === Elephant Bar'
@15,26 say '7. === Looby Bar'
@16,26 say '8. === The Bakery Shop'
@17,26 say '9. === New Dazzle Night Club'
@18,26 say '10.=== Exit'
@20,24 to 22,56 doub
```

```
  @21,28 say 'Your Choice [  ]'
  @21,41 get choice2 pict '99'
  read
do case
  case choice2 = 1
  clear
      do rest1


    case   choice2 = 2
  clear
      do rest2



  case  choice2   = 3
  clear
      do rest3



  case  choice2   = 4
  clear
      do rest4



  case  choice2 = 5
  clear
      do rest5



  case   choice2 = 6
  clear
      do rest6



   case  choice2 = 7
  clear
      do rest7
```

```
   case  choice2 = 8
   clear
       do rest8



   case  choice2 = 9
   clear
     do rest9



    endcase

    enddo
   return


Procedure rform
   use hotel
   store 'Y' to ans
   set stat off
   use hotel
   do while ans ='Y'
   clear
   store space(10) to mroomno
   @1,25 to 3,55
   @2,30 say 'Registration section'
   @3,3 to 20,77 doub
   @4,5 say 'Room number:' get mroomno pict 'AAA-999'
   read
   store space(20) to mname
   store space(20) to maddress
   store space(10) to mcity
   store space(12) to mcountry
   store space(12) to mfrom
   store space(12) to mdestinat
   store space(10) to mnatnality
   store 0.00 to mbill
   store 0.00 to mdeposit
   store 0.00 to mbalance
   store ctod('  /  /  ') to  mardate, mdepdate
```

```
  do displays
  read
  append blank
  replace roomno with mroomno
  replace name with mname, address with maddress, city with mcity
  replace country with mcountry, from with mfrom, destinat with mdestinat
  replace bill with mbill, deposit with mdeposit
  replace ardate with mardate, depdate with mdepdate
  @21,20 to 23,60
  store 'N' to ans
  @22,22 say 'Enter more record(s) ? (Y/N)' get ans pict '!';
      valid ans $ 'YN' error 'Invalid entry !!!'
  read
  enddo
  close databases

  return

 Procedure Displays
    @4,45 say 'NAME:' get mname pict '@!'
    @6,5 say 'ADDRESS:' get maddress pict '@!X'
    @6,45 say 'CITY:' get mcity pict '@X'
    @8,5 say 'COUNTRY :' get mcountry pict '@!'
    @8,45 say 'COMING FROM:' get mfrom pict '@!'
    @10,5 say 'DESTINATION:' get mdestinat pict '@!'
    @12,5 say 'NATIONALITY:' get mnatnality pict '@!'
    @14,5 say 'DEPOSIT:' get mdeposit pict '999999.99'
    @14,45 say 'ARRIVAL DATE:' get mardate pict '99-99-99'
    @16,5 say 'DEPARTURE DATE:' get mdepdate pict '99-99-99'
    @16,45 say 'BILLING :' get mbill pict '999999.99'

  return
Procedure Display2

  replace bill with  (mbill + bill)
  replace balance  with (deposit-bill)


  @16,30 say 'BILL TO PAY:'+str(bill,7,2)

  @18,30 say 'DEPOSIT:'+str(deposit,7,2)

   @20,30 say 'BALANCE:'+str(balance,7,2)
```

```
  use hotel
  @23,5 say ' '
  wait
  close data
  return

procedure deleterec
  store 'Y' to ans
  set stat off
  use hotel
  do while ans ='Y'
  clear
  store space(7) to mroomno
  @1,25 to 3,55
  @2,30 say 'Deletion of Record'
  @3,3 to 20,77 doub
  @4,5 say 'Room no:' get mroomno pict 'AAA-999'
  read
  locate all for mroomno = roomno
  if found()
  store name to mname
  store address to maddress
  store ardate to mardate
  store depdate to mdepdate
  store country to mcountry
  store city to mcity
  store from to mfrom
  store natnality to mnatnality
  store bill to mbill
  store destinat to mdestinat
  store balance to mbalance
  store deposit to mdeposit
    do displays
 clear gets
  @21,20 to 23,60
  store 'N' to reply
  @22,22 say 'Are you sure? (Y/N)' get reply pict '!';
 valid reply $ 'YN' error 'Invalid entry!!!'
  read
  if reply = 'Y'
  dele
  pack
  endif
  else
```

```
   @10,20 say 'Record does not exist'
   endif
   @21,20 clea to 23,60
   @21,20 to 23,60
   store 'N' to ans
   @22,22 say 'Delete more record? (Y/N)' get ans pict '!'
   read
   enddo
   close data
   return

  procedure rest1
   set status off

   use hotel

   clear
   @1,25 to 3,55
   @2,30 say  'Papillion Restaurant'
   store space(7) to mroomno
   store 0.00 to mbill
   @12,30 say 'Room number:' get mroomno pict 'AAA-999'
   read
   locate all for mroomno = roomno
   if found()
   @14,30 say 'Your Bill is:' get mbill pict '999999.99'
   read
   do display2
   else
   @18,20 say 'Such Room does not exist'
   endif
   close data
    return


procedure rest2
   set status off

   use hotel
   clear
   @1,25 to 3,55
   @2,30 say 'Luigi_s   Restaurant '
   store space(7) to mroomno
```

```
   store 0.00 to mbill
   @12,30 say 'Room number:' get mroomno pict 'AAA-999'
   read
   locate all for mroomno = roomno
   if found()
   @14,30 say 'Your Bill is:' get mbill pict '999999.99'
   read
   do display2
   else
   @18,20 say 'Such Room does not exist'
   endif
   close data
    return


procedure rest3
   set status off

   use hotel
   clear
   @1,25 to 3,55
   @2,30 say  'Mirabelle Restaurant'
   store space(7) to mroomno
   store 0.00 to mbill
   @12,30 say 'Room number:' get mroomno pict 'AAA-999'
   read
   locate all for mroomno = roomno
   if found()
   @14,30 say 'Your Bill is:' get mbill pict '999999.99'
   read
   do display2
   else
   @18,20 say 'Such Room does not exist'
   endif
     close data
          return


 procedure rest4
  set status off

   use hotel
   clear
```

```
    @1,25 to 3,55
    @2,30 say  'Pool Snack Bar'
    store space(7) to mroomno
    store 0.00 to mbill
    @12,30 say 'Room number:' get mroomno pict 'AAA-999'
    read
    locate all for mroomno = roomno
    if found()
    @14,30 say 'Your Bill is:' get mbill pict '999999.99'
    read
    do display2
    else
    @18,20 say 'Such Room does not exist'
    endif
    close data
     return



procedure rest5
    set status off

    use hotel

    clear
    @1,25 to 3,55
    @2,30 say  'Boathhouse'
    store space(7) to mroomno
    store 0.00 to mbill
    @12,30 say 'Room number:' get mroomno pict 'AAA-999'
    read
    locate all for mroomno = roomno
    if found()
    @14,30 say 'Your Bill is:' get mbill pict '999999.99'
   read
    do display2
    else
    @18,20 say 'Such Room does not exist'
    endif
    close data
     return
```

```
      ? "S/N   ROOM NO.        NAME          BILLING      BALANCE"
      ? replicate ('=',79)
      store 1 to cout
      use rest
      use hotel

     go top
   do while .not. eof()
    ?str(cout,3),' ',roomno, ' ', name,' ' , str(bill,9,2),' ',str(balance,9,2)
    cout = cout + 1
    skip
   enddo
    ? replicate ('=',79)
    ?
    set alternate off
    @ 23,5 say ' '
    wait
   close data
    return


procedure person
    set alternate to 'hotel1.out'
    set alternate on
    store 'Y' to ans
    set stat off

    use rest
  do while ans ='Y'

    store space(7) to mroomno
    @1,25 to 3,55
    @2,30 say 'Printing of Record'
    @3,3 to 20,77 doub
    @4,5 say 'Room  no:' get mroomno pict 'AAA-999'
    read
    use hotel
    clear
      locate all for mroomno = roomno
        if found()
        clear
        do header
        ? space(30),'NOTICE OF BILLING'
        ? space(30),'*****************'
```

```
      ?
      ? 'NAME :    ',NAME
      ?
      ? 'ADDRESS :    ',ADDRESS
      ?
      ? 'ROOM NUMBER:    ',ROOMNO
      ?
      ? 'ARRIVAL DATE:    ',ARDATE,'     ', 'DEPARTURE DATE:     ',DEPDATE
      ?
      ? 'BILLING  : ', BILL
      ?
      ? 'BALANCE      :' ,BALANCE
      ?
      ? SPACE(35),'SIGNED:.....'
        set alternate off
        @23,2 say ' '
        wait
else
        @14,22 say 'Room does not exist'
        @23,2 say ' '
        wait
endif
   @21,20 clea to 23,60
   @21,20 to 23,60
   store 'N' to ans
   @22,22 say 'Print more record? (Y/N)' get ans pict '!'
   read
   clear
enddo
close data
return
```

APPENDIX 2.

```
Program menu(Input, Output, Custfile, Staffile, Roomfile);
Uses Crt, Printer, Graph, Dos;
Const
  {User define fill pattern}
  User1 : FillPatternType = ($AA, $59, $AA, $55, $AA, $55, $AA, $55);
  User2 : FillPatternType = ($FF, $10, $FF, $10, $FF, $10, $FF, $10);
  User3 : FillPatternType = ($00, $00, $00, $00, $00, $00, $00, $00);
  User4 : FillPatternType = ($FF, $FF, $FF, $FF, $FF, $FF, $FF, $FF);
  User5 : FillPatternType = ($AE, $A4, $AE, $A4, $AE, $A4, $AE, $A4);

  Spacebar=chr(32);
  Esc=chr(27);
  Tab=chr(09);
  Uparrow=chr(72);
  Downarrow=chr(80);
  Leftarrow=chr(75);
  Rightarrow=chr(77);
  Enter=chr(13);

Label 10;

Var
  GraphDriver : integer;  { The Graphics device driver }
  GraphMode   : integer;  { The Graphics mode value }
  MaxX, MaxY  : word;     { The maximum resolution of the screen }
  ErrorCode   : integer;  { Reports any graphics errors }
  MaxColor    : word;     { The maximum color value available }
  OldExitProc : Pointer;  { Saves exit procedure address }
  Datfile:Text;
  Lina:Array[1..5] of String[20];
  Lin,Ans:String[80];
  linn:String[35];

  scr, mark,ecode,tot:integer;
  y0, y1, y2,x1, x2,i,j,k2,k,m2,m,tabin,tabout,amax,amin,tabout2: integer;
  Key:Char;
  Rep,ct,choice3,choice1,choice2,choice4:integer;
  Keyp:String[1];

function Int2Str(L : LongInt) : string;
{ Converts an integer to a string for use with OutText, OutTextXY }
var
```

```
  S : string;
begin
  Str(L, S);
  Int2Str := S;
end; { Int2Str }

Procedure Initialize;
{ Initialize graphics and report any errors that may occur }
var
  InGraphicsMode : boolean; { Flags initialization of graphics mode }
  PathToDriver   : string;  { Stores the DOS path to *.BGI & *.CHR }
begin
  { when using Crt and graphics, turn off Crt's memory-mapped writes }
  DirectVideo := False;
  OldExitProc := ExitProc;                { save previous exit proc }
  PathToDriver := 'A:\tp\bgi';
  repeat

{$IFDEF Use8514}                          { check for Use8514 $DEFINE }
    GraphDriver := IBM8514;
    GraphMode := IBM8514Hi;
{$ELSE}
    GraphDriver := Detect;                { use autodetection }
{$ENDIF}

    InitGraph(GraphDriver, GraphMode, PathToDriver);
    ErrorCode := GraphResult;             { preserve error return }
    if ErrorCode <> grOK then             { error? }
    begin
      Writeln('Graphics error: ', GraphErrorMsg(ErrorCode));
      if ErrorCode = grFileNotFound then  { Can't find driver file }
      begin
        Writeln('Enter full path to BGI driver or type <Ctrl-Break> to quit:');
        Readln(PathToDriver);
        Writeln;
      end
      else
        Halt(1);                          { Some other error: terminate }
    end;
  until ErrorCode = grOK;
  Randomize;                  { init random number generator }
  MaxColor := GetMaxColor;  { Get the maximum allowable drawing color }
  MaxX := GetMaxX;          { Get screen resolution values }
  MaxY := GetMaxY;
```

```
end; { Initialize }


Procedure box(x1,y1,x2,y2,r1,r2,c1,c2,c3:integer);
begin
  setcolor(c1);
  setlinestyle(Solidln,0,Normwidth);
  arc(x1+r1,y1+r1,90,180,r1);
  arc(x2-r2,y1+r2,0,90,r2);
  arc(x1+r2,y2-r2,180,270,r2);
  arc(x2-r1,y2-r1,270,0,r1);
  line(x1+r1,y1,x2-r2,y1);
  line(x2,y1+r2,x2,y2-r1);
  line(x2-r1,y2,x1+r2,y2);
  line(x1,y2-r2,x1,y1+r1);
{  setfillpattern(user2,c1);}
  floodfill(x1+10,y1+10,c1);
  setlinestyle(Solidln,0,Thickwidth);
  setcolor(c2);
  arc(x1+r1,y1+r1,90,180,r1);
  arc(x2-r2,y1+r2,0,90,r2);
  setcolor(c3);
  arc(x1+r2,y2-r2,180,270,r2);
  arc(x2-r1,y2-r1,270,0,r1);
  setcolor(c2);
  line(x1+r1,y1,x2-r2,y1);
  line(x2,y1+r2,x2,y2-r1);
  setcolor(c3);
  line(x2-r1,y2,x1+r2,y2);
  line(x1,y2-r2,x1,y1+r1);
end;

Procedure Press;
Begin
  Setcolor(Yellow);
  Settextstyle(Defaultfont, Horizdir,2);
  Outtextxy(100, 460,'- Press Space bar to continue');
  repeat
    Keyp := Readkey;
  until (keyp = Spacebar) or (keyp = esc);
  if keyp = esc then halt;
End;

Procedure Initial(Name:String);
```

```
Begin
  Initialize;
  Settextstyle(Triplexfont,Horizdir,4);Setcolor(Yellow);
  Outtextxy(10,5,Name); Setcolor(White);
  bar(5,40,630,50);
  bar(5,430,630,440);
End;

Procedure Background;
Begin;
  initialize;
  setfillpattern(user1,7);
  box(5,10,Maxx-10,Maxy-20,20,20,7,15,15);
End;

Procedure ClearSc;
Begin
  Clrscr;
  setfillpattern(user4,0);
  box(0,0,Maxx,Maxy,0,0,0,0,0);
  floodfill(100,100,0);
End;

Procedure Page1;
Begin
  Background;
  settextstyle(Defaultfont, Horizdir,2);
  Setcolor(Red);
  Outtextxy(50, 70,'SHERATON HOTEL AND TOWERS');
   Outtextxy(20, 140,'COMPUTERIZATION OF HOTEL FACILITIES');
  settextstyle(Defaultfont, Horizdir,2);
  Outtextxy(30,210,'FOOD & BEVERAGES SERVICES');
  Setcolor(Blue);
  Settextstyle(Defaultfont, Horizdir,2);
  Outtextxy(30, 280,'ADAMOLEKUN B.O.(PGD/MCS/110/96)');
  Outtextxy(20, 350,'COMPUTER SCIENCE Dept., FUT Minna');
  Setcolor(Yellow);
  settextstyle(Defaultfont, Horizdir,2);
  Repeat

  Outtextxy(100, 420,'- Press any key to continue');
  Until keypressed;

End;
```